Colonel William E. Ehly

Ordnance, United States Army

Colonel Ehly was commissioned a Second Lieutenant in the Infantry in June 1973 through the ROTC program at Michigan State University. Following completion of the Infantry Basic Course, he was assigned to the 101st Airborne Division. He served as an Infantry Platoon Leader, and upon transfer to the Ordnance Corps, served as Shop Officer and Company Commander in the 801st Maintenance Battalion.

After graduation from the Ordnance Advanced Course in 1979, Colonel Ehly was assigned to the 7th Engineer Brigade, Germany, where he served as Assistant S-4 and Brigade Maintenance Officer. Returning to CONUS in 1981, he was assigned to the Senior Army Advisory Group to the Kansas Army National Guard where he advised the maintenance and logistics units of the Guard. During 1984 and 1985 he served as the Operations Officer for the Assistant Chief of Staff for Materiel, 19th SUPCOM, Korea.

From 1986 to 1989, Colonel Ehly was assigned to the Project Manager for Cannon Artillery Weapon Systems (CAWS) and the Project Manager Howitzer Improvement Program (HIP) where he served as Logistics Manager and Assistant Project Manager. From 1989 to 1991 he served as the Chief of the Tank, Automotive, and Armament Division, 19th Corps Materiel Management Center, 3d COSCOM, Germany.

From 1991 to 1994 Colonel Ehly was assigned as the Commander, Defense Plant Representative Office and the Lima Army Tank Plant, Lima, Ohio. From 1995 to 1998 he was assigned as the Commander, Close Combat Armaments Center, TACOM-ARDEC. From 1998 to 2001 he was assigned as the Director for Systems Integration, Office of the Assistant Secretary of the Army (Acquisition, Logistics and Technology), Pentagon.

Colonel Ehly is presently assigned to the Program Executive Office, Intelligence, Electronic Warfare and Sensors as the Deputy PEO.

Colonel Ehly has a B.A. in Business Administration from Michigan State University and a Masters in Systems Management from the Florida Institute of Technology. He is a certified member of the Army Acquisition Corps. His military education includes the Infantry Basic Course, Ordnance Advanced Course, Command and General Staff Officer Course, Materiel Acquisition Management Course, and the Army War College.

His military awards include the Army Commendation Medal with Oak Leaf Cluster, Army Meritorious Service Medal with three Oak Leaf Clusters, Defense Meritorious Service Medal, the Army Parachute Badge and the Army Air Assault Badge.

Colonel Ehly and his wife, Jackie, have four children, Tammy, Scott, Ron and John.

PEO IEW&S Overview

COL William Ehly, DPEO IEW&S

May 2002

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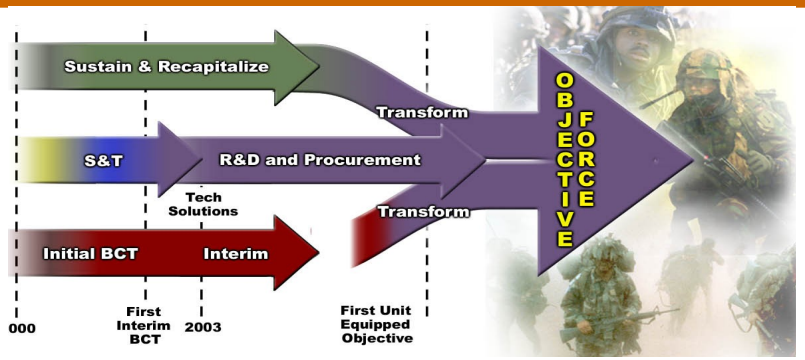
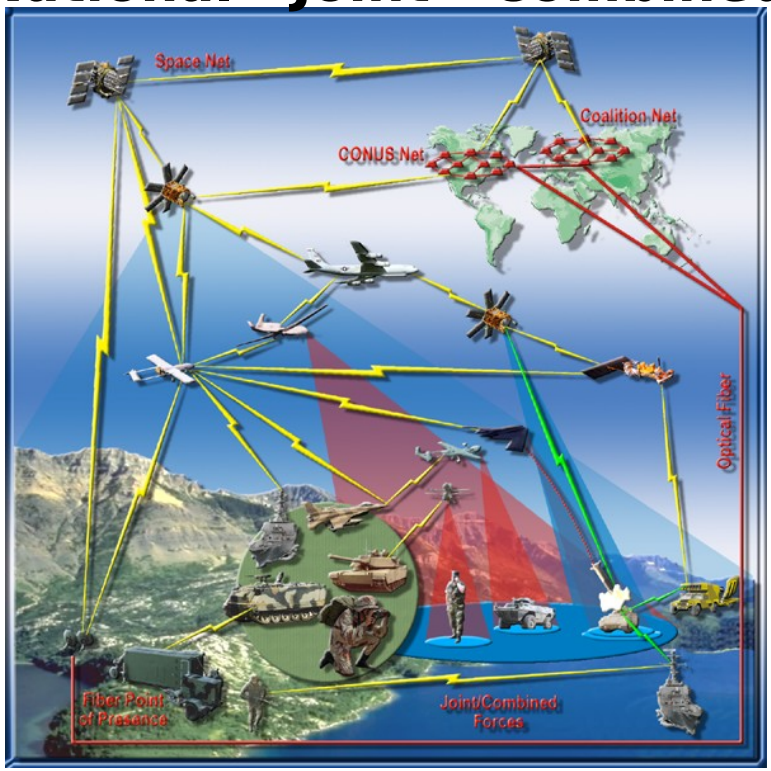
Outline

- Vision
- Organization
- Transformation
- Sensor Grid
- Technology Needs
- Programs
  - DCGS-A
  - Signals Warfare
  - NV/RSTA
- Virtual Acquisition Planning for Industry

Army Vision



National - Joint - Combined



A strategically responsive force that is dominant across the full spectrum of operations....

...See First...

Understand First...

Act First...

Finish Decisively!

PEO IEW&S Organization

IEW&S
PROGRAM EXECUTIVE OFFICE

PM Signals Warfare
PM Aerial Common Sensor
PM Prophet
PM Information Warfare

PM DCGS-A
PM CGS & Datalinks
PM CHIMS

PO JPSD

PM Navigation Systems
PM TIMS
PM GPS/DAGR

PM NV/RSTA
PM FLIR
PM Robotic and Unmanned Sensors
PM Firefinder

PM Tactical Applicatior

PM Aviation Systems
PM IRCM
PM RFCM

PM C&ISS

Actionable Intelligence Capabilities

Dominant Maneuver

- **Airborne**
- **Ground-Based**

GR/CS

ARL

TUAV Payloads

ACS

MARS

TESAR

TSP

Prophet

CGS

LRAS3

2nd Gen FLIR f/ Bradley

DCGS-A

PLGR

DVE

Precision Engagement

- **Targeting**
- **Sensor-to-Shooter**

TUAV Payloads

Profiler

GR/CS

CGS

Firefinder

DCGS-A

LLDR

JTT

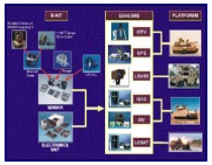
2nd Gen FLIR f/ Abrams

Actionable Intelligence Capabilities

Force Protection • **Full Dimension**

CID Panels

BCIS



2nd Gen FLIR

LVRS

LRAS3

TUAV Payloads

ACS

Technologies

SIGINT

Lasers

REACH

GPS

Multi-Sensor Fusion

SAR

HSI

RF/IR Counter-measures

Cross Cueing

AiTRs

MTI

Magnetic Sensors

FOPEN

IR

Army Transformation – Where We Are Going…

Early Situational Understanding in Advance of t

- Enhanced **Indications and Warnings** (I&W) which Enables **Operational Maneuver from Strategic Distance**
- **Superior Intelligence** to Better Manage **Transition to Combat** on our Own Terms
- **Enabling ISR Sensors** for Early Detection-Targeting is a 2nd Priority

Tactical Overmatch in Any Situation

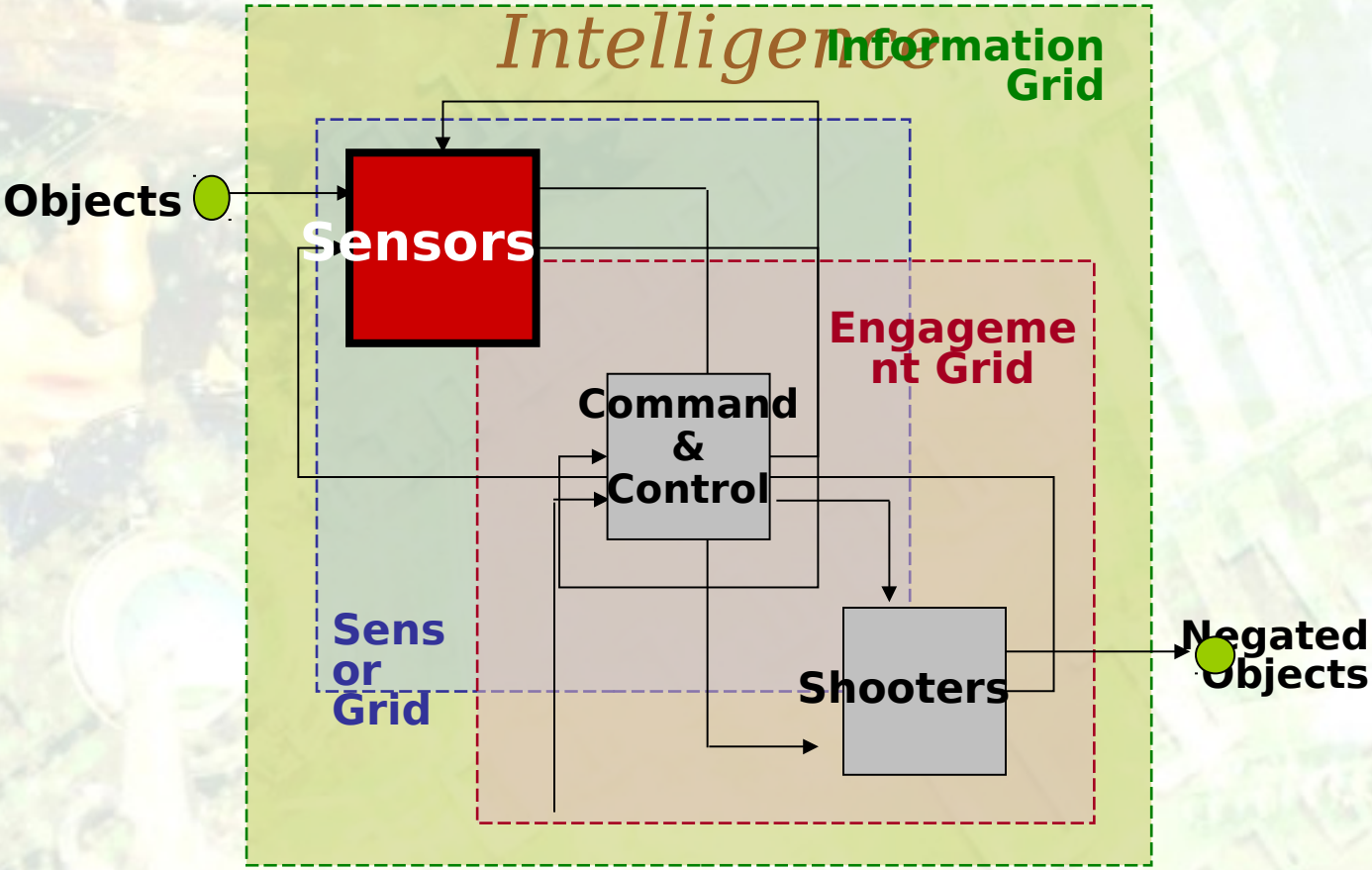
- Will Operate with a **'Red Zone'** that is Considerably **Larger** than the 3-5km Envisioned in Current Doctrine
- **Embedded RSTA Sensors** that Allow us to **See Further,** and Provide Ability to Engage with **Long-Range Fires**
- **Full Spectrum Dominance** in Both **Urban** and **Open** Environments

High Tempo – Continuous, Simultaneous Engagements

- **Integrated Fires, Engagement** and **Distributed Operations**
- **Will Control More Space** with Less Manpower and **Reduced Foot Print**
- **Integrated, Layered Sensors** enables **Adaptive Dominance**

Army Transformation – Where We Are Going…

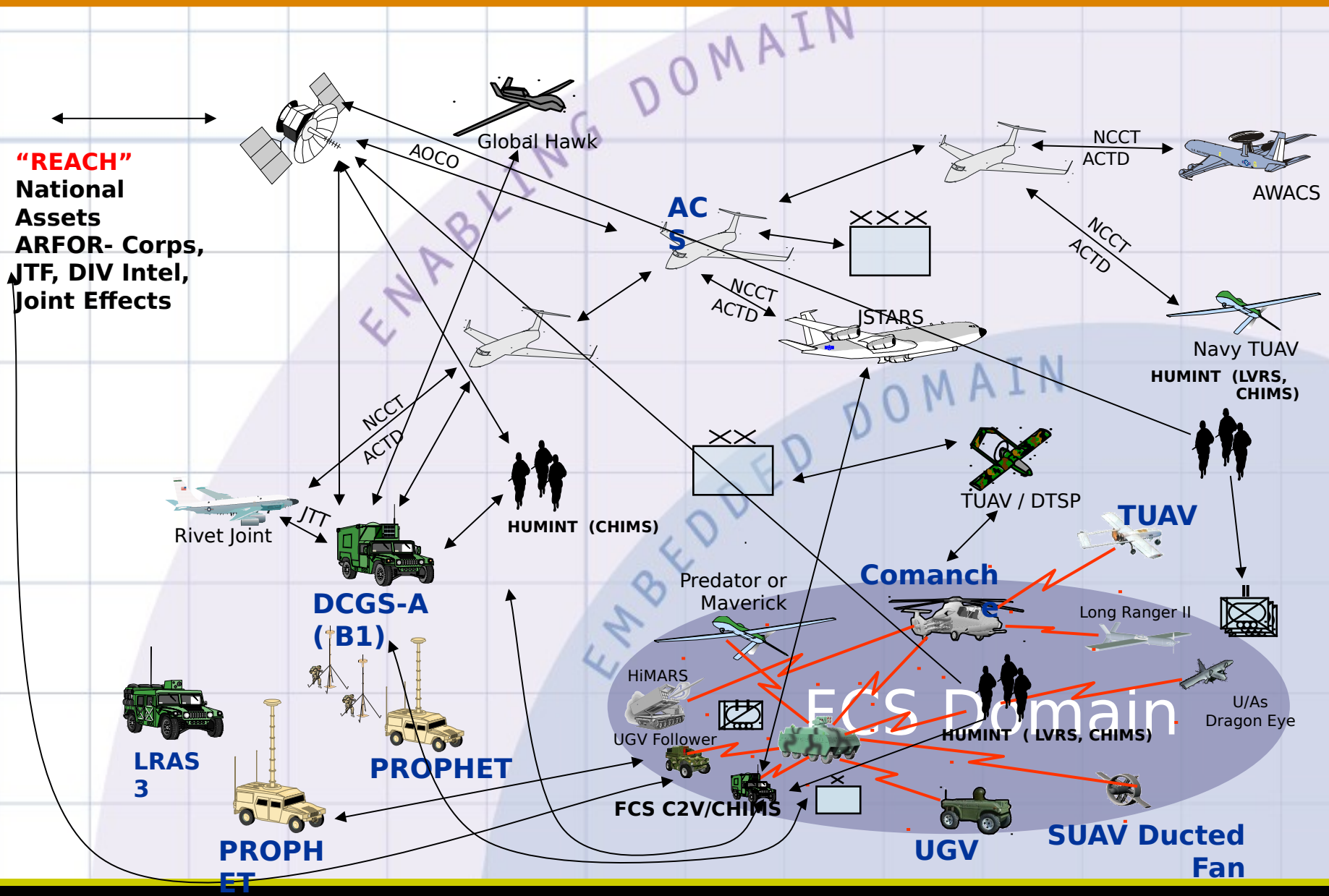
Netted Sensors Provide Actionable Intelligence



"In the fundamental shift to network-centric operations, sensor networks emerge as key enabler of increased combat power."

– Network Centric Warfare, 2nd Edition, Alberts, Garthska, S

Sensor Grid


"REACH"
National Assets
ARFOR- Corps, JTF, DIV Intel, Joint Effects
AOCO
Global Hawk
ACS
NCCT ACTD
AWACS
JSTARS
Navy TUAV
HUMINT (LVRS, CHIMS)
Rivet Joint
JTT
HUMINT (CHIMS)
TUAV / DTSP
TUAV
DCGS-A (B1)
Predator or Maverick
Comanche
Long Ranger II
HiMARS
UGV Follower
FCS Domain
HUMINT (LVRS, CHIMS)
U/As Dragon Eye
LRAS 3
PROPHET
FCS C2V/CHIMS
PROPHET
UGV
SUAV Ducted Fan
ENABLING DOMAIN
EMBEDDED DOMAIN

Technology Needs for the Objective Force

IMINT

- **Uncooled focal plane arrays**
- **3rd Gen FLIR (higher resolution, longer ranges**
- **Aided target recognition**
- **Data fusion and correlation**

MASINT

- **Less complex man-machine interface**
- **Cross cueing to more mature sensors**
- **Millimeter Wave Imaging (through the wall)**
- **Magnetic sensing**

SIGINT

- **Efficient Low Band arrays**
- **Detecting Low Band Emitters**
- **Sharing COMINT resources**
- **Embedded precision geo-location (Multi-Ship operations)**
- **Beam forming interference cancellation (discriminating military targets in high density non-military environments)**

Technology Needs for the Objective Force

Masked Target Sensors	• **Locating CC&D targets** • **Locating Buried Mines**
National Tactical Integration	• **Cooperative operations from manned and unmanned IMINT and MASINT platforms** • **Airborne Overhead Cooperative Operations (AOCO)** • **Network Centric Cooperative Targeting (NCCT)**

PEO IEW&S (PM DCGS-A)
Distributed Common Ground Station - Army (DCGS-A)

Program Objective:

An integration of existing and future ISR ground stations to produce a common modular, scalable, and Multi-INT joint interoperable architecture and capability.

Key Players:

PEO IEW&S	**MDA**
USAICS	**DCGS-A Requirements**
ASPO	**TES Legacy System**
PM SW	**GRIFN Legacy System**
PM DCGS-A	**CGS Legacy System** **CHIMS Legacy System**
PM I&E	**ASAS Legacy System**

Key Features:

- **Improve Warfighter Situational Awareness/Understanding**
- **Improved Intel Dissemination at all Echelons**
- **Reduced Intel Forward Footprint**
- **Network Centric System of Systems Approach**
- **Interoperability and Data Sharing**
- **Multi-INT TPED**
- **Interim DCGS-A Based on Legacy Systems**
- **AoA to Determine Objective DCGS-A Approach**

Program Major Milestones:

DATE	EVENT
2QFY 02	Modify Legacy System Contracts
1QFY 03	Enable INSCOM (513th MI Bde w/DC
2QFY 03	Objective DCGS-A ORD Approval
3QFY 03	Objective DCGS-A MS B
4QFY 03	Interim DCGS-A at XVIII ABC
FY 04	Interim DCGS-A to III Corps
FY 06	Objective DCGS-A MS C
FY 09	Objective DCGS-A IOC

Key Considerations: FCS Synchronization

Sensor Synchronization

Contract Opportunity

Objective: **Provide Integrated Multi-INT Common Ground Station for the Objective Force**

Contract Type: **Competitive**

Estimated Value: **TBD**

Key Milestones: **3QFY03 MS B; 4QFY03 Contract Award**

Technical Contact:

Acquisition Contact: **TBD**

Solicitation # or RFO #: **TBD**

"The whole of military activity . . . the end for which a soldier is recruited, clothed, armed, and trained . . . is simply that he should fight at the right place and at the right time."

Clausewitz

Must Have ISR! First...

See First... Understand